

ABSTRACT OF THE DISCLOSURE

A cell search apparatus and method for performing a cell search without using matched filter are provided. The cell search apparatus includes a correlating unit having a code generator for generating a P-search code in a first step of identifying slot timing, an S-search code in a second step of identifying frame timing and a P-scrambling code in a third step of identifying a scrambling code. The correlating unit executes despread processing utilizing the P-search code in the first step, despread processing utilizing the S-search code in the second step and despread processing using the P-scrambling code in the third step. The cell search circuit further comprises a power calculating unit for calculating correlation power values from the output of the correlating unit, a memory for storing the output of the power calculating unit, a detect unit for searching for a maximum value of correlation power values that have been stored in the memory, a decision unit for comparing an average value of correlation power values that have been stored in the memory with the maximum value, using a predetermined threshold coefficient, in the second and third steps; and a control unit for controlling the operation timing of the above-mentioned units.